



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

ed for, therefore, only by supposing its solidity to be preserved by the enormous pressure to which, at considerable depths, the mass is subjected. The author then offers an explanation of the phenomena of volcanos on the supposition that a portion of matter more fusible than the general mass of the globe exists in a state of fusion in subterranean reservoirs, forming so many subterranean lakes of determinate extent; in some cases originally distinct; in others, communicating with adjoining lakes, by more or less obstructed channels; a theory which will also account for all the obscure geological elevations, except perhaps the earliest, as being produced by a simultaneous action of a fluid pressure on every portion of the lower part of a solid mass of definite extent. The author considers this harmony in his general views with the results of analytical investigation as constituting for them a strong claim to the attention of geologists.

Another important conclusion which the author deduced from his researches is, that if the interior temperature of the earth be due to its primitive heat, pressure must be effective in promoting solidification of masses at high temperatures.

2. The following paper was read:—"Contributions to Terrestrial Magnetism," No. III. By Lieut.-Colonel Edward Sabine, R.A., F.R.S.

In this memoir, the author gives a detailed account of the observations on the magnetic intensity made at sea by the officers of the *Erebus* and the *Terror* on their passage from England to Kerguelen's Land; the unreduced observations transmitted to the Admiralty by the Commanders of these ships, Captain James Ross and Captain Crozier, having been placed in his hands for that purpose.

The first part of the paper relates to the observations made between England and the Cape of Good Hope; and the second, to those made between the Cape and Kerguelen's Land. These observations, made at various stations, are given in the form of tables; and their accordance with the isodynamic lines drawn from Mr. Dunlop's observations, contained in the first number of the author's contributions on this subject, is pointed out.

January 27, 1842.

SIR JOHN WILLIAM LUBBOCK, Bart., V.P. and Treas.,
in the Chair.

Samuel Peace Pratt, Esq., was balloted for, and duly elected a Fellow of the Society.

The following papers were read, viz.—

1. "Barometrical Observations made at Yarmouth, Norfolk, on

the 21st of June and 21st of September 1841." By Arthur Utting, Esq. Communicated by Captain Edward J. Johnson, R.N., F.R.S.

2. "On the Anatomy and Physiology of the Decidua." By Robert Lee, M.D., F.R.S.

In this paper, the author describes some appearances which he has observed in the structure of the human decidua, and which apparently prove that the circulation of the maternal blood in the ovum is carried on during the early months of gestation, chiefly by the different layers of this membrane, and the cells of the chorion. He has been led by his observations to the belief, that the veins of the uterine decidua convey blood from the decidual cavity into the veins of the uterus; and that, in all probability, a current of maternal blood is constantly flowing from the cells of the chorion, through the decidua reflexa, into the decidual cavity.

February 1, 1842.

At a Special Meeting of the Royal Society, held at nine o'clock, A.M.,

SIR JOHN WILLIAM LUBBOCK, Bart., V.P. and Treas.,
in the Chair.

His Majesty the King of Prussia came to the Society, accompanied by Baron Alexander von Humboldt: whereupon the Vice-President in the Chair addressed him in the following words:—

"May it please Your Majesty,

"It is my duty to express to Your Majesty the great regret which we feel, and which we are confident that the Marquis of Northampton the President of this Society will participate in, that, being in a distant country, he is unable to be present upon this auspicious occasion, so interesting to the members, and which will long be gratefully remembered in the history of the Society.

"In his absence, therefore, I must endeavour, however imperfectly, to express to Your Majesty, the great gratification with which the Society will see the august name of Your Majesty, who is venerated as the encourager of art, of literature, and of science, enrolled in our Charter book in the same page with those of our most gracious and beloved Sovereign and her illustrious Consort; and we beg leave accordingly to present the Charter book to Your Majesty for that purpose."

His Majesty then signed his name in the Charter book, and was duly admitted a Fellow of the Society.

His Majesty expressed his gratification at having his name enrolled among the Fellows of the Royal Society.

Baron Alexander von Humboldt, formerly elected a Foreign Member, also signed his name in the Charter book, and was duly admitted a Fellow.